

IL-1 β , Mouse

Cat. No.: Z02985-1

Size: 1.0 mg

Synonyms: Catabolin, Lymphocyte-activating factor (LAF), Endogenous Pyrogen (EP), Leukocyte Endogenous Mediator (LEM), Mononuclear Cell Factor (MCF)

Description:

Interleukin-1 Beta (IL-1 β) is a proinflammatory cytokine produced in a variety of cells including monocytes, tissue macrophages, keratinocytes and other epithelial cells. Both IL-1 alpha and IL-1 beta binds to the same receptor and has similar if not identical biological properties. These cytokines have a broad range of activities including, stimulation of thymocyte proliferation, by inducing IL-2 release, B-cell maturation and proliferation, mitogenic FGF-like activity and the ability to stimulate the release of prostaglandin and collagenase from synovial cells. However, whereas IL-1 beta is a secreted cytokine, IL-1 alpha is predominantly a cell-associated cytokine.

Recombinant mouse Interleukin-1 Beta(rmIL-1 β) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 153 amino acids. A fully biologically active molecule, rmIL-1 β is obtained by proprietary chromatographic techniques at GenScript, with an apparent molecular weight of 17.5kDa analyzed by reducing SDS-PAGE.

Amino Acid Sequence:

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00001 MVPIRQLHYR LRDEQQKSLV LSDPYELKAL HLNQQINQQ
00041 VIFSMSFVQG EPSNDKIPVA LGLKGNLYL SCVMKDGTPT
00081 LQLESVDPKQ YPKKKMEKRF VFNKIEVKSK VEFSAEFPN
00121 WYISTSQAEH KPVFLGNNSG QDIIDFTMES VSS
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Source: *E. coli*

Species: Mouse

Biological Activity: ED50<2.0 pg/ml, measured by the dose-dependent stimulation of mouse D10S cells, corresponding to a specific activity of > 5.0 \times 10⁸units/mg.

Molecular Weight: 17.5kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O or PBS at 100 μ g/ml.

Purity: > 95% by SDS-PAGE and HPLC analyses.

Endotoxin Level: <0.2 EU/ μ g, determined by LAL method.

Storage: Lyophilized recombinant mouse Interleukin-1 Beta(rmIL-1 β) remains stable up to 6 months at lower than -70 $^{\circ}$ C from date of receipt. Upon reconstitution, rmIL-1 β should be stable up to 2 weeks at 4 $^{\circ}$ C or up to 3 months at -20 $^{\circ}$ C.